

CLAIMS

We claim.

1 1. A method for making payments across multiple payment networks
2 including a first payment network having a first payment service
3 provider and a plurality of associated payers and payees, and a
4 second payment network having a second payment service provider and
5 a plurality of associated payers and payees, comprising:

6 receiving, at a first payment service provider, a request to
7 make a payment on behalf of a payer to a payee not associated with
8 the first payment network;

9 transmitting a request of the first payment service provider
10 to determine a payment network within the multiple payment networks
11 with which the payee is associated;

12 receiving information indicating that the payee is associated
13 with the second payment network; and

14 transmitting a payment instruction from the first payment
15 service provider to the second payment service provider to make the
16 payment to the payee.

1 2. The method of claim 1, wherein:

2 the received information includes a unique identifier which
3 identifies the payee to the second payment service provider; and

4 the transmitted payment instruction includes the unique
5 identifier.

1 3. The method of claim 2, wherein the request to make a payment
2 on behalf of the payer to the payee is a first request to make a
3 first payment to the payee, and the payment instruction is a first
4 payment instruction, and further comprising:

5 storing the received information indicating that the payee is
6 associated with the second payment network, the stored information

7 including the received unique identifier;
8 receiving, at the first payment service provider, a second
9 request to make a second payment to the payee;
10 retrieving the stored information indicating that the payee is
11 associated with the second payment network;
12 transmitting a second payment instruction, including the
13 retrieved unique identifier, from the first payment service
14 provider to the second payment service provider to make the second
15 payment to the payee.

1 4. The method of claim 3, wherein:
2 the first request is a request to make a payment on behalf of
3 a first payer; and
4 the second request is a request to make a payment on behalf of
5 one of the first payer or a second payer.

1 5. The method of claim 1, wherein:
2 the request to determine a payment network is transmitted to an
3 inter-network directory provider.

1 6. The method of claim 5, further comprising:
2 identifying one or more of the multiple payment networks as
3 candidate payment networks with which the payee may be associated
4 based upon the transmitted request;
5 transmitting information, by the inter-network directory
6 provider, indicating the one or more identified candidate payment
7 networks to the first payment service provider;
8 wherein the transmitted information indicating the one or more
9 identified candidate payment networks includes information
10 identifying the second payment network as a candidate payment
11 network.

1 7. The method of claim 6, further comprising:

transmitting a request to the second payment service provider to determine if the payee is associated with the second payment network;

wherein the received information indicating that the payee is associated with the second payment network is received from the second payment service provider in response to the transmitted request to determine if the payee is associated with the second payment network.

8. The method of claim 7, wherein the received information indicating that the payee is associated with the second payment network includes information identifying the payee as one candidate payee and at least one other payee as another candidate payee associated with the second payment network, and further comprising:

identifying, by the second payment service provider, the payee as a candidate payee and the at least one other payee as another candidate payee based upon the received request; and

determining, prior to transmitting the payment instruction, that the one candidate payee, and not the at least one other candidate payee, is the payee based upon at least one of 1) information included in the request transmitted to the second payment service provider, and 2) received information identifying the one and the at least one other candidate payees.

9. The method of claim 8, wherein the payer is associated with the first payment network, the request to make a payment on behalf of the payer is received from the payer, and the determination that the one candidate payee is the payee is made by the payer, further comprising:

transmitting the received information identifying the one and the at least one other candidate payees to the payer; and

receiving, at the first payment service provider, the determination that the one candidate payee is the payee from the

10 payer.

1 10. The method of claim 8, wherein the determination that the one
2 candidate payee the payee is made by the first payment service
3 provider.

1 11. The method of claim 7, wherein the received information from
2 the inter-network directory provider further includes information
3 identifying a third payment network as a candidate payment network,
4 and further comprising:

5 transmitting a request to a third payment service provider
6 associated with the third payment network to determine if the payee
7 is associated with the third payment service network;

8 determining that the payee is not associated with the third
9 payment service network responsive to the request to the third
10 payment service provider; and

11 transmitting the result of the determination by the third
12 payment service provider to the first payment service provider.

1 12. The method of claim 7, wherein the received information from
2 the inter-network directory provider includes information
3 indicating that the second payment service provider requires
4 secured communications, further comprising:

5 accessing a certificate authority to retrieve an encryption
6 key associated with the second payment service provider; and

7 encrypting the request transmitted to the second payment
8 service provider with the encryption key prior to transmission of
9 the request.

1 13. The method of claim 7, wherein the received information
2 indicating that the payee is associated with the second payment
3 network is a positive declaration that the payee is associated with
4 the second payment network.

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1 14. The method of claim 5, wherein:

2 the inter-network directory provider stores information
3 associated with each of the multiple payment networks and
4 information indicating a network path over which to communicate
5 with a certificate authority; and

6 the information associated with each of the multiple payment
7 networks includes at least one of 1) information indicating a
8 country in which a payment service provider associated with that
9 payment service network is located, 2) information identifying a
10 network path over which to communicate with the associated payment
11 service provider, 3) information indicating types of financial
12 transactions supported by the associated payment service provider,
13 4) information indicating secured communications requirements of
14 the associated payment service provider, 5) information identifying
15 a treasury service provider associated with the associated payment
16 service provider, 6) information identifying a deposit account
17 associated with the associated payment service provider, 7)
18 information identifying a processing model associated with the
19 associated payment service provider, 8) and information identifying
20 a settlement method associated with the associated payment service
21 provider.

1 15. The method of claim 14, wherein the information stored by the
2 inter-network directory provider is accessed and searched by the
3 first payment service provider.

1 16. The method of claim 14, wherein the information stored by the
2 inter-network directory provider is downloaded and searched by the
3 first payment service provider.

1 17. The method of claim 5, wherein the inter-network directory
2 provider stores information for each of the multiple payment
3 networks indicating associations between its payment service

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provider and its payees, and the received information indicating that the payee is associated with the second payment network is received from the inter-network directory provider and is a positive determination that the payee is associated with the second payment network, further comprising:

determining, by the inter-network directory provider, the payment network with which the payee is associated based upon the transmitted request and the stored information.

18. The method of claim 1, wherein the request to determine the payment network with which the payee is associated is transmitted to the second payment service provider, and the received information indicating that the payee is associated with the second payment network is received from the second payment service provider.

19. The method of claim 1, wherein:

the request to make the payment on behalf of the payer is received from a third payment service provider; and

the payer and the third payment service provider are associated with a third payment network.

20. The method of claim 1, wherein the payment is one of a payment of a bill, a payment of an invoice, a gift payment, a person-to-merchant payment, or a person-to-person payment.

21. The method of 1, wherein:

the request to make the payment is structured according to a first message set; and

the request to determine the payment network with which the payee is associated, the information indicating that the payee is associated with the second payment network, and the payment instruction are each structured according to a second message set

7 message set different than the first message set.

1 26. The method of claim 1, further comprising:

2 determining, at the second payment service provider, if the
3 payment instruction will be accepted;

4 transmitting the results of the determination to the first
5 payment service provider; and

6 transmitting the received results of the determination to the
7 payer.

1 27. A system for making payments across multiple payment networks
2 including a first payment network having a plurality of associated
3 payers and payees, and a second payment network having a plurality
4 of associated payers and payees, comprising:

5 a first payment processing station associated with the first
6 payment network configured to 1) receive a request to make a
7 payment on behalf of a payer to a payee not associated with the
8 first payment network, 2) to transmit a request to determine a
9 payment network within the multiple payment networks with which the
10 payee is associated, 3) to receive information indicating that the
11 payee is associated with the second payment network, and 4) to
12 transmit a payment instruction to the second payment network to
13 make the payment to the payee; and

14 a second payment processing station associated with the second
15 payment network and configured to receive the transmitted payment
16 instruction.

1 28. The system of claim 27, wherein:

2 the received information includes a unique identifier which
3 identifies the payee to the second payment processing station; and

4 the transmitted payment instruction includes the unique
5 identifier.

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1 29. The system of claim 28, wherein:

2 the request to make a payment on behalf of the payer to the
3 payee is a first request to make a payment to the payee;

4 the payment instruction is a first payment instruction;

5 the first payment processing station is further configured to
6 1) store the received information indicating that the payee is
7 associated with the second payment network, including the unique
8 identifier, 2) receive a second request to make a second payment to
9 the payee, 3) retrieve the stored information indicating that the
10 payee is associated with the second payment network, 4) transmit a
11 second payment instruction, including the retrieved unique
12 identifier, to the second payment network; and

13 the second payment processing station is further configured to
14 receive the second payment instruction.

1 30. The system of claim 29, wherein:

2 the first request is a request to make a payment on behalf of
3 a first payer; and

4 the second request is a request to make a payment on behalf of
5 one of the first payer or a second payer.

1 31. The system of claim 27, further comprising:

2 an inter-network directory station configured to receive the
3 transmitted request to determine the payment network with which the
4 payee is associated.

1 32. The system of claim 31, wherein:

2 the inter-network directory station is further configured to
3 identify one or more of the multiple payment networks as candidate
4 payment networks with which the payee may be associated based upon
5 the transmitted request, and to transmit information indicating the
6 one or more identified candidate payment networks to the first
7 payment network;

2 a payer network station associated with the first payment
3 network and configured to transmit, via the network, the payment
4 request to the first payment processing station;

5 wherein the first payment processing station is further
6 configured to transmit, via the network, the received information
7 identifying the one candidate payee and the at least one other
8 candidate payee to the payer network station;

9 wherein the payer network station is further configured to
10 receive the transmitted information and to transmit a payer
11 selection of the payee from the information identifying the one
12 candidate payee and the at least one other candidate payee to the
13 first payment processing station.

1 36. The system of claim 34, wherein:

2 the first payment processing station is further configured to
3 determine, prior to transmitting the payment instruction, that the
4 one candidate payee, and not the at least one other candidate
5 payee, is the payee based upon at least one of 1) information
6 included in the request transmitted to the second payment
7 processing station, and 2) the received information identifying the
8 one and the at least one other candidate payees.

1 37. The system of claim 33, wherein the received information from
2 the inter-network directory station further includes information
3 identifying a third payment network as a candidate payment network,
4 further comprising:

5 a third payment processing station associated with the third
6 payment network;

7 wherein the first payment processing station is further
8 configured to transmit a request to the third payment network to
9 determine if the payee is associated with the third payment network
10 and to receive results of the determination of if the payee is
11 associated with the third payment network;

12 wherein the third payment processing station is configured to
13 receive the request transmitted to the third payment network, to
14 determine if the payee is associated with the third payment
15 network, and to transmit, the results of the determination; and
16 wherein the results of the determination are that the payee is
17 not associated with the third payment network.

1 38. The system of claim 33, further comprising:

2 a certificate authority configured to store a plurality of
3 encryption keys, each associated with one of a plurality of payment
4 processing stations;

5 wherein the information received from the inter-network
6 directory station includes information indicating that the second
7 payment processing station requires secured communications;

8 wherein the first payment processing station is further
9 configured to access the certificate authority to retrieve an
10 encryption key associated with the second payment processing
11 station and to encrypt the request with the encryption key prior to
12 transmission of the request.

1 39. The system of claim 33, wherein:

2 the received information indicating that the payee is
3 associated with the second payment network is a positive
4 declaration that the payee is associated with the second payment
5 network.

1 40. The system of claim 31, wherein:

2 the inter-network directory station is further configured to
3 store information associated with each of the multiple payment
4 networks and information indicating a network path over which to
5 communicate with a certificate authority;

6 the information associated with each of the multiple payment
7 networks includes at least one of 1) information indicating a

country in which a payment processing station associated with that payment network is located, 2) information identifying a network path over which to communicate with the associated payment processing station, 3) information indicating types of financial transactions supported by the associated payment processing station, 4) information indicating secured communications requirements of the associated payment processing station, 5) information identifying a treasury service provider associated with the associated payment processing station, 6) information identifying a deposit account associated with the associated payment processing station, 7) information identifying a processing model associated with the associated payment processing station, 8) and information identifying a settlement method associated with the associated payment processing station.

41. The system of claim 40, wherein:

the inter-network directory station is further configured such that the stored information is accessed and searched by the first payment processing station.

42. The system of claim 40, wherein:

the inter-network directory station is further configured such that the stored information is downloaded and searched by the first payment processing station.

43. The system of claim 31, wherein:

the received information indicating that the payee is associated with the second payment network is received from the inter-network directory station and is a positive determination that the payee is associated with the second payment network; and

the inter-network directory station is further configured to store information for each of the multiple payment networks indicating associations between its payment processing station and

9 it payees, and to determine the payment network with which the
10 payee is associated based upon the transmitted request and the
11 stored information.

1 44. The system of claim 27, wherein:

2 the request to determine the payment network with which the
3 payee is associated is transmitted to the second payment network;

4 the received information indicating that the payee is
5 associated with the second payment network is received from the
6 second payment processing station;

7 the second payment processing station is further configured to
8 determine if the payee is associated with the second payment
9 network based upon the received request.

1 45. The system of claim 27, further comprising:

2 a third payment processing station associated with a third
3 payment network;

4 wherein the request to make a payment on behalf of the payer
5 is received from the third payment processing station; and

6 the payer is associated with the third payment network.

1 46. The system of claim 27, wherein the payment is one of a payment
2 of a bill, a payment of an invoice, a gift payment, a person-to-
3 merchant, or a person-to-person payment.

1 47. The system of 27, wherein:

2 the request to make the payment is structured according to a
3 first message set;

4 the request to determine the payment network with which the
5 payee is associated, the information indicating that the payee is
6 associated with the second payment network, and the payment
7 instruction are each structured according to a second message set
8 different than the first message set.

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48. The system of claim 27, wherein:

the first payment processing station is further configured to cause funds to be transferred from an account associated with the payer to an account associated with the first payment processing station and to cause funds to be transferred from an account associated with the first payment processing station to an account associated with the second payment processing station; and

the second payment processing station is further configured to cause funds to be transferred from an account associated with the second payment processing station to an account associated with the payee.

49. The system of claim 48, wherein and least one of 1) the transfer of funds from the account associated with the payer to an account associated with the first payment processing station, 2) the transfer of funds from an account associated with the first payment processing station to an account associated with the second payment processing station, and 3) the transfer of funds from an account associated with the second payment processing station to the account associated with the payee is an electronic funds transfer.

50. The system of claim 27, further comprising:

a payee network station associated with the second payment network;

wherein the first payment processing station is further configured to transmit remittance advice associated with the payment to the second payment network; and

wherein the second payment processing station is further configured to receive the transmitted remittance advice and to further transmit the remittance advice to the payee network station.

1 51. The method of claim 50, wherein:
2 the remittance advice transmitted from first payment
3 processing station to the second payment network is structured
4 according to a first message set; and
5 the remittance advice transmitted from the second payment
6 processing station to the payee network station is structured
7 according to a second message set different than the first message
8 set.

1 52. The method of claim 27, wherein:
2 the second payment processing station is further configured to
3 determine if the payment instruction will be accepted for
4 execution, and to transmit the results of the determination to the
5 first payment network; and
6 the first payment processing station is further configured to
7 receive transmitted results and to propagate the results to the
8 payer.

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